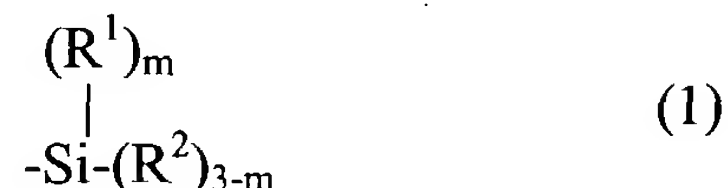


What is claimed is:

1. A polyvinyl alcohol obtained by hydrolysis of a polyvinyl ester comprising polymerized silyl group functionalized monomer units of formula (1):



wherein R^1 represents an alkyl group having from 1 to 5 carbon atoms; R^2 represents an alkoxy or acyloxy group; and m is an integer of from 0 to 2,

which satisfies the following formulae (I):

$$20 < Pw \times S < 460 \quad (I)$$

wherein Pw is the weight average degree of polymerization of the polyvinyl alcohol; and S is the content (mol%) of the silyl group functionalized monomer units of formula (1) in the polyvinyl alcohol, and

wherein the weight fraction of the polyvinyl alcohol molecules having a degree of polymerization that is more than 3 times the weight-average degree of polymerization of the entire amount of polyvinyl alcohol is at most 25% by weight of the polyvinyl alcohol.

2. The polyvinyl alcohol as claimed in claim 1, wherein the weight fraction of the polymer molecules having a degree of polymerization that is smaller than $1/2$ times the weight average degree of polymerization of the entire amount of polyvinyl alcohol is at most 12% by weight.

3. The polyvinyl alcohol as claimed in claim 1, which satisfies the following formula (II):

$$0.1/100 \leq (A - B)/B \leq 50/100 \quad (II)$$

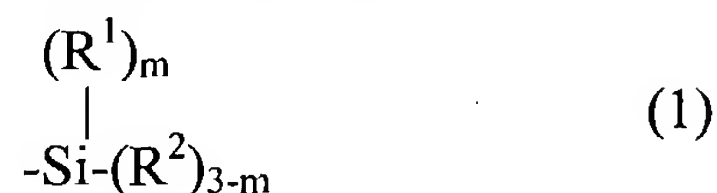
wherein A is the silicon atom content of the polyvinyl alcohol in ppm; B is the silicon atom content of the polyvinyl alcohol in ppm after the polyvinyl alcohol has been washed with a sodium hydroxide-containing methanol solution and then washed by Soxhlet extraction with methanol, and A and B are measured by ICP emission spectrometry of an ashed sample of the polyvinyl alcohol, and

wherein an aqueous 4 % solution of the polyvinyl alcohol has a pH of from 4 to 8.

4. A coating agent that contains the polyvinyl alcohol of any one of claims 1 to 3.

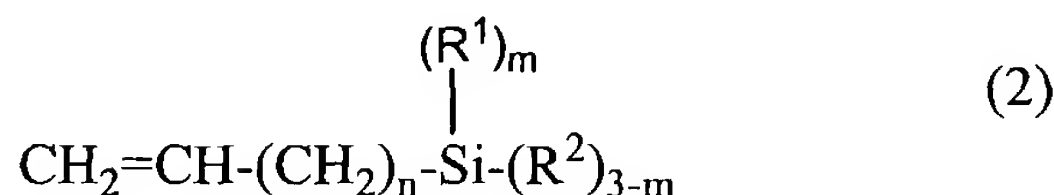
5. A coated article produced by applying the coating agent of claim 4 to a substrate.
6. An inkjet recording material produced by applying the coating agent of claim 4 to a substrate.
7. A thermal recording material produced by applying the coating agent of claim 4 to a substrate.
8. The polyvinyl alcohol as claimed in claim 1, wherein R^2 is an alkoxyl or acyloxyl group having an oxygen-containing substituent.
9. The polyvinyl alcohol as claimed in claim 1, wherein
$$50 < P_w \times S < 420.$$
10. The polyvinyl alcohol as claimed in claim 1, wherein
$$100 < P_w \times S < 390.$$
11. The polyvinyl alcohol as claimed in claim 3, wherein
$$0.3/100 \leq (A-B)/(B) \leq 25/100.$$
12. The polyvinyl alcohol as claimed in claim 3, wherein
$$0.4/100 \leq (A-B)/(B) \leq 20/100.$$
13. The polyvinyl alcohol as claimed in claim 1 having a degree of hydrolysis of at least 98 mol%.
14. The polyvinyl alcohol as claimed in claim 1, wherein the hydrolyzed silyl group functionalized monomer units are present in an amount of from 0.05 to 1.0 mol%.
15. The polyvinyl alcohol as claimed in claim 1, wherein the hydrolyzed silyl group functionalized monomer units are present in an amount of from 0.2 to 0.5 mol%.
16. A method for producing the polyvinyl alcohol of claim 1, which comprises:

copolymerizing a vinyl ester monomer with a monomer having a silyl group of formula (1) to form a polyvinyl ester:



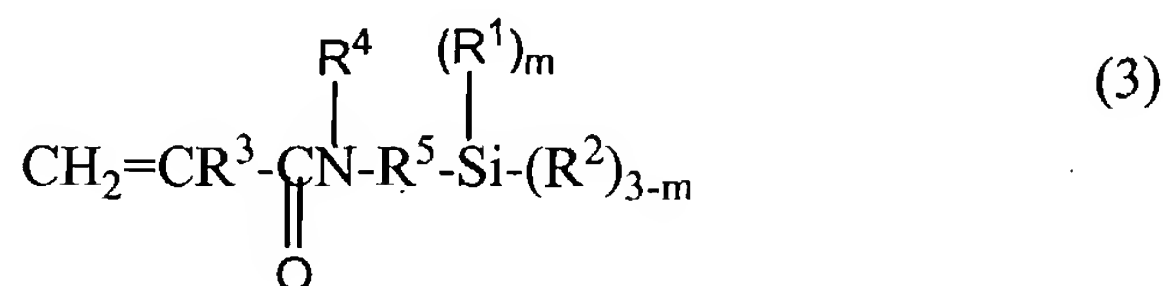
wherein R^1 represents an alkyl group having from 1 to 5 carbon atoms; R^2 represents an alkoxyl or acyloxyl group; and m is an integer of from 0 to 2, and then hydrolyzing the polyvinyl ester.

17. The method as claimed in claim 16, wherein the monomer is represented by formula (2):



wherein R^1 represents an alkyl group having from 1 to 5 carbon atoms; R^2 represents an alkoxyl or acyloxyl group; m indicates an integer of from 0 to 2; and n is an integer of from 0 to 4,

or by formula (3):



wherein R^1 represents an alkyl group having from 1 to 5 carbon atoms; R^2 represents an alkoxyl or acyloxyl group; R^3 represents a hydrogen atom or a methyl group; R^4 represents a hydrogen atom, or an alkyl group having from 1 to 5 carbon atoms; R^5 represents an alkylene group having from 1 to 5 carbon atoms, or a divalent hydrocarbon group that contains an oxygen or nitrogen atom; and m is an integer of from 0 to 2.

18. The method as claimed in claim 16, wherein R^2 is an alkoxyl or acyloxyl group having an oxygen-containing substituent.

19. The method as claimed in claim 16, wherein the vinyl ester monomer is vinyl acetate and the monomer having a silyl group of formula (1) is vinyl trimethoxy silane.